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Peer education and its impact on college women's perceived risk of HIV/AIDS infection

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PEER EDUCATION AND ITS IMPACT ON COLLEGE WOMEN'S PERCEIVED RISK OF HIV/AIDS INFECTION

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Overview

Although researchers have recognized the potential for high rates of human immunodeficiency virus (HIV) infection among college students in the United States, very few of the studies have looked at the HIV-related behaviors of college-age men and women separately (Carroll, 1991). College men and women are potentially at risk for HIV infection because they often engage in unprotected sexual activities with multiple partners, experiment with alcohol and drugs which may impair judgments about safer sexual practices, and fail to perceive themselves as at risk for HIV infection (Freimuth, Edgar, & Hammond, 1987; Keeling, 1987). Women currently account for over 11 percent of all reported adult acquired immune deficiency syndrome (AIDS) cases (Centers for Disease Control [CDC], 1992a). Despite the fact that women are the fastest growing category of people with AIDS in the U.S., little is known about effective HIV prevention strategies for females (Kelly & Murphy, 1991).

AIDS is beginning to spread far beyond previously identified high-risk groups; hence, individuals typically not regarded as high-risk should be targeted for education and prevention efforts (Weisse, Nesselhof-Kendall, Fleck-

Kandath, & Baum, 1990). To date, the bulk of AIDS research on women has focused on poor women of color, female intravenous (IV) drug users, and the sexual partners of IV drug users. Although these women make up the majority of reported HIV/AIDS cases (CDC, 1992b), these subgroups of the female population are not the only groups at risk of HIV infection. All sexually active and/or IV drug using-women, including those who may not belong to identified high-risk groups, are conceivably at risk. While efforts to educate those in high-risk groups must continue, AIDS prevention efforts must also take a broader approach; thus, providing information and skills that will help everyone minimize the risk of infection (Weisse et al., 1990).

Middle-class heterosexual women generally do not perceive themselves to be at risk for contracting HIV (Stuntzner-Gibson, 1991). Given that the majority of college women are heterosexual, it is important to assess college women's knowledge, sexual practices, and perceived risk of HIV to prevent HIV infection from spreading within this subpopulation. The present study broadens the scope of current research on women and HIV by concentrating on those who have been neglected in the AIDS literature (i.e., heterosexual, middle-class college women). More specifically, the use of peer education and its effect on college women's perceived risk of HIV/AIDS infection will be examined.

Gender Differences

To date, few researchers have examined gender differences with respect to AIDS knowledge and perceptions of AIDS risk. In one study of college students, Carroll (1991) found no gender differences in the overall level of AIDS knowledge. But, despite the fact that women were less likely to hold certain common misbeliefs about AIDS, more men accurately perceived the risk of heterosexual transmission. These findings suggest that college women do not see themselves as being at risk of HIV infection or believe that women have a greater natural immunity to AIDS than men. Carroll (1991) states:

> Clearly, there are gender differences in the ways in which, and the processes by which, college students are adjusting their behavior in response to AIDS. These differences should be explicitly recognized by college health professionals and incorporated into AIDS education programs. (p. 12)

Sexual Transmission

Although men are overrepresented in the total number of adult/adolescent AIDS cases, women outnumber men in the heterosexual exposure category (CDC, 1990). HIV transmission from males to females may be greater than from females to males because the concentration of HIV in semen is high and more men are infected (Guinan & Hardy, 1987; Safyer & Spies-Karotkin, 1988). Also, vaginal intercourse

is more traumatic to women because of vaginal tears which can occur during intercourse and provide portal of entry for HIV. Even more alarming is the notion that many women are unaware of their exposure to a person in a high-risk category (Guinan & Hardy, 1987). Women's sexual partners may not be truthful or disclose information about their previous or current IV drug use, sexual practices, and/or sexual partners. In short, heterosexual women are at a higher risk of HIV contraction from an infected partner than are their male counterparts.

AIDS Knowledge and Perception of Risk

The incidence of HIV transmission through heterosexual contact is growing rapidly, yet college environments do not promote sexual responsibility. College students are well-informed about HIV transmission, yet they generally do not perceive themselves as vulnerable to HIV contraction (Baldwin & Baldwin, 1988; Goodwin & Roscoe, 1988; Maticka-Tyndale, 1991). For example, Baldwin and Baldwin (1988) found that, although college students possessed a high level of knowledge about AIDS, this was not a predictor of safer sexual practices. These findings support the contention that factors besides knowledge have a significant impact on behaviors, particularly attitudes and beliefs about the personal risk of HIV infection. A study by Gray and Saracino (1989) revealed no relationship between college students' knowledge about AIDS and their sexual behavior;

however, they did find a significant relationship between self-assessment of personal risk for AIDS and reduced sexual contacts.

According to Edgar, Freimuth, and Hammond (1988), contradictions between AIDS-related attitudes and behavior are not uncommon, especially among younger heterosexuals. For example, over 60% of the students on one campus stated that heterosexuals had a moderate to high risk of contracting AIDS, yet 75% of those same students rated their personal risk as very low (Freimuth, Edgar, & Hammond, 1987). Similarly, Crawford (1990) found that the AIDS health crisis has not had a significant impact on the sexual behavior of undergraduates at a major urban university. His study revealed that students reported minimal concerns about contracting HIV from their current sexual partners and few HIV-related changes in their sexual activity.

Underestimating Personal Risk

The most effective preventive education requires that people recognize their personal risk and take action to change risky behaviors (Hepworth & Shernoff, 1989); however, college students with a high level of knowledge about HIV may underestimate their personal risk of contraction for several reasons. According to Keeling (1987) these include: (a) young adults' illusions of invulnerability; (b) the long incubation period for AIDS and the lack of immediate symptoms; (c) the social pressures in college to experiment

with alcohol, sex, and drugs; (d) students' tendency to underestimate the level of risky sexual behaviors of their sexual partners; and (e) general peer pressure and group norms that convey a general notion of invincibility. In short, the problem for college students is that they fail to assess accurately their personal risk of contracting HIV (McDermott, Hawkins, Moore, & Cittadino, 1987).

Keeling (1987) suggests that if young people do not see the threat of HIV infection as immediate and personally relevant, they will not take precautions. Given the lengthy incubation period for HIV, adolescents will almost never know any peers with AIDS. When the risk of HIV appears so remote and seemingly unconnected to the everyday life of young adults, the belief that "it can't happen to me" is understandable. According to Melton (1988), "If we wish to increase adolescents' avoidance of behavior that increases the risk of HIV infection, a first step is to make the risk cognitively available: concrete and salient in terms of adolescents' everyday experience" (p. 404).

Changing Behavior

Silverman, Perakyla, and Bor (1992) propose that one of the many tasks of social science research is to develop interventions that promote safer sexual practices. Because research has demonstrated that knowledge about HIV does not always result in safer sex practices, factors other than knowledge must be identified to motivate change in HIV-

related risk behavior. Although problems arise in isolating factors effective in changing behavior (Miller & Pinching, 1989), some strategies have been shown to be more efficacious than others. For example, Stoller and Rutherford (1989) point out that peer-group support and pressure serve as powerful motivators of change in health behavior. Others posited that because of the influence that college-age students have on one another, the use of peer education directed toward increasing knowledge and changing attitudes may be an important component in an AIDS education program (Rickert, Jay, & Gottlieb, 1991).

Social Influence and Peer Pressure

The purpose of the present research is to increase college women's perceived risk of HIV infection through social influence, more specifically, peer influence. The literature suggests that similar individuals, such as those found in many reference groups and social networks, serve as especially effective models (e.g., Bandura, 1977; Rosekrans, 1967). More specifically, one type of information that people may acquire from similar others is perceptions of vulnerability to negative outcomes, for example, their likelihood of contracting AIDS (Fisher & Misovich, 1990).

According to Fisher and Misovich (1990), information that individuals are <u>not</u> less vulnerable to HIV/AIDS than their peers may be an effective means of increasing AIDS-preventive behavior (APB). When asked what it would take to

get them to engage in APB, college students replied, "A close friend who contracted AIDS" (Fisher & Misovich, 1990). This response suggests that information which conveys that they are as vulnerable as similar others (Perloff & Fetzer, 1986) may constitute a source of social influence that would elicit APB. Increased perceptions of vulnerability may result when young people recognize that AIDS is occurring among others "just like them."

For college women, who are likely to encounter tremendous peer pressure, one of the most potent sources of social influence is the attitudes and behaviors of similar others. Peer group norms often encourage certain kinds of risky sexual behavior and/or drug use; thus, making it difficult for many students not to conform (Keeling, 1987). According to Keeling (1987), the implications of peer pressure are serious in terms of risk reduction relative to HIV transmission: (1) the peer group assessment of the risk of HIV transmission may be inaccurate and may promote risky behavior; (2) peer pressure may interfere with the purchase or use of condoms and with intentions to use them; and (3) peer pressure may promote sexual behaviors or substance use behaviors for which the student is psychologically ill-prepared.

Peer Education

Dissatisfaction with the limited success of traditional educational methods has created a need for creative

alternate approaches to AIDS education targeted at young adults (Shulkin et al., 1991). Although the vast majority of studies focusing on AIDS education have used adult health care providers, the use of peer counselors has been shown to be effective in a wide variety of settings (Rickert et al., 1991). In addition to reducing rates of cigarette smoking, marijuana use, and excessive drinking (Leupker, Johnson, Murray, & Pechacek, 1983; Murray, Johnson, Leupker, & Mittlemark, 1984), peer-led programs have been found effective in producing attitude changes related to perception of personal risk of HIV infection, as well as in changing attitudes to help prevent transmission (Rickert et al., 1991; Shulkin, Mayer, Wessel, de Moor, Elder, & Franzini, 1991).

As students are greatly influenced by peer opinions, their involvement in the planning and implementation of HIV prevention activities is critical (Gayle, Keeling, & Garcia-Tunon, 1991). Moreover, developers of excellent campus AIDS education programs have emphasized the critical importance of including students in organizing and operating these programs (Kodama, 1987). Training peer educators who will not be perceived as distant authority figures may create a more accurate personal assessment of personal susceptibility to HIV/AIDS in college women (Gray & Saracino, 1989). The use of peer education, particularly in a campus environment, may create a social climate that supports risk-

reducing behavior as the norm rather than the exception (Keeling, 1987).

Design of the Study

The design of the present research consisted of a pretest, educational intervention (viewing an educational prevention videotape), and posttest. Two variables were controlled: Gender of Educator and Status of Educator (i.e., peer versus health professional). The experimental design utilized five conditions:

Condition 1: College women who view a videotaped presentation on AIDS prevention led by a female peer educator.

Condition 2: College women who view a videotaped presentation on AIDS prevention led by a male peer educator.

Condition 3: College women who view a videotaped presentation on AIDS prevention led by an older female professional health educator.

Condition 4: College women who view a videotaped presentation on AIDS prevention led by an older male professional health educator.

Condition 5: College women who view a videotaped presentation not related to HIV/AIDS.

Hypotheses

Three hypotheses were examined.

Hypothesis I

College women who view a videotaped educational presentation led by a female peer educator will report greater change in concern about their perceived vulnerability to HIV/AIDS when compared to college women viewing a male peer educator or an older female or male professional health educator.

Hypothesis II

College women who have had multiple sex partners (i.e., two or more) within the past 12 months will report greater change in concern about their perceived vulnerability to HIV/AIDS after viewing a videotaped educational presentation led by a female peer educator as compared to college women who have had less than two sexual partners within the past 12 months who are exposed to the other conditions previously described.

Hypothesis III

College women who have engaged in more high risk sexual or injection drug use behaviors within the past 12 months will report greater change in concern about their perceived vulnerability to HIV/AIDS after viewing a videotaped educational presentation led by a female peer educator as compared to college women who have engaged in fewer high risk sexual or injection drug use behaviors who are exposed

to the other conditions previously described.

METHOD

Subjects

A total of 203 female undergraduate students from psychology classes at Loyola University of Chicago participated in the study for credit. Subjects were given consent forms and informed that their participation was voluntary and that their responses would be anonymous. A copy of the consent form is presented in Appendix A.

Measures

Demographic Questionnaire

Subjects were asked to complete a questionnaire to obtain basic demographic information (i.e., age, year in school, religious affiliation, marital status, ethnic/racial background, and socio-economic status). In addition, subjects were asked the question, "Do you know anyone personally who has contracted HIV/AIDS?" A copy of the Demographic Questionnaire is provided in Appendix B.

Sexual and Drug Use Inventory

Participants were also asked to fill out a survey assessing their sexual and drug use behaviors. Respondents were asked, for example, the number of sexual partners each has had within the past 12 months, type of sexual activity, frequency of condom use, drugs utilized, and frequency of

drug use. The Sexual and Drug Use Inventory (SDUI) was adapted from Harrell and Bing (1990) and is presented in Appendix C.

AIDS Knowledge Questionnaire

A 49 item true-false questionnaire was adapted from the General AIDS Knowledge Questionnaire (GAKQ; Koopman, Rotheram-Borus, Henderson, Bradley, & Hunter, 1990).[1] Koopman et al. reported a standardized item alpha of .82 and test-retest reliability of (r = .82 overall, N = 52, p < .0001). Scores on the AIDS Knowledge Questionnaire (AKQ) range from 0-49, with higher scores indicating greater knowledge about AIDS.

The true-false items include questions in six domains: 1. definitions, e.g., "AIDS means acquired immune deficiency syndrome" (7 items); 2. outcomes, e.g., "You can die from AIDS" (6 items); 3. risk behavior, e.g., "Getting AIDS depends on whether or not you practice safe sex, not on the group you hang out with" (8 items); 4. transmission, e.g., "A baby born to a mother with HIV infection can get AIDS" (11 items); 5. prevention, e.g., "Using a condom will lessen the chance of getting AIDS" (11 items); and 6. HIV testing, e.g., "If you get a 'false positive' result on your HIV antibody test, it means you are infected" (6 items). The

[1]Three items were omitted from the GAKQ because the correct responses for these items were dependent on state law. Participants in this study came from a variety of geographical locations and may not be familiar with Illinois state laws concerning HIV/AIDS testing.

correct response was "true" for 22 items, and "false" was the correct response for the other 27 items. A copy of the AKQ is presented in Appendix D.

Beliefs about Preventing AIDS Scale

The Beliefs about Preventing AIDS (BAPA) measure is a 45 item, Likert-type questionnaire with response choices *strongly agree* to *strongly disagree*, each scored on a four-point scale (Koopman et al., 1990). The BAPA questionnaire includes 39 items developed by Koopman et al. (1990) and also contains six items measuring perceived invulnerability to HIV/AIDS developed by the experimenter.

Factor analysis was run on the items revealing a Perceived Vulnerability (PV) subscale which was used to assess participants' perceived vulnerability to HIV/AIDS. The PV subscale contains four items: "There is a good chance I will get AIDS during the next five years"; "It is possible that I could get AIDS"; "It is conceivable that I could be exposed to the AIDS virus at some point during my life"; and "I feel almost sure that I will get AIDS" (items 9, 10, 20, 28). Internal consistency of the subscale was assessed using Cronbach's alpha. The PV Subscale achieved a standardized item alpha of .69. Scores on the PV Subscale ranged from 4 through 16, with higher scores indicating greater perceived vulnerability to HIV/AIDS infection. A copy of the BAPA Scale is presented in Appendix E.

Stimulus Materials

In order to assess the impact of a peer educator on the perceived vulnerability of respondents, five separate educational prevention videotapes were used. Four of the prevention videotapes, created specifically for this project, conveyed information concerning behaviors associated with HIV infection, the possible risks of infection, and methods of prevention. Each of the tapes involved a Caucasian educator who is either a female peer educator, male peer educator, an older (i.e., 35-40 year old) female professional health educator, or an older male (i.e., 35-40 year old) professional health educator for each of the four experimental conditions. The communicators, acting as health educators, were professional actors hired by the experimenter. The peer communicators in the videotapes were HIV/AIDS Peer Educators for a local university. Each of the videos used for the experiment were professionally edited and produced.

In the experimental conditions, the information conveyed was identical in content and only the communicator differed. For the control condition, a videotape concerning women in business was used, a topic unrelated to HIV/AIDS. A copy of the script used in the AIDS educational videotapes is included in Appendix F.

Procedure

At the onset of the experiment, participants were asked

to report to a classroom in order to complete a questionnaire. Upon their arrival, subjects were asked to sign a consent form explaining the general nature of the study. Students were assured of the confidentiality and anonymity of all responses, and the need for truthful answers was emphasized. Anonymity of responses was maintained by asking subjects to use a numerical and alphabetical code in order to match pretest and posttest information.

Participants were then asked to complete a survey containing the Demographic Questionnaire and SDUI, the AKQ, and the BAPA Scale developed by Koopman et al. (1990). Upon completion of the pretest questionnaires, the participants were randomly assigned to one of five experimental conditions. Each student was thanked and given a written notice requiring her participation for the remainder of the study which took place two weeks later. Finally, the experimenter orally reminded the participants that participation in both sessions was necessary in order to receive participation credit.

Upon arrival at the second session, subjects in each of the five conditions were welcomed and told that the nature of the study was to obtain their reactions to an educational presentation. After viewing one of the five prevention videotapes, subjects again completed the AKQ and the BAPA Scale as posttest measures. The participants were thanked

and distributed a debriefing form explaining the nature of the study. A copy of the debriefing form is included in Appendix G. Last, participants received an AIDS awareness pamphlet donated by the Student Health Office at Loyola University.

RESULTS

Respondent Characteristics

A total of 203 respondents participated in the experiment. Because the purpose of the study was to educate unmarried, college-age women, those subjects responding as 25 years of age or older and/or married were not included in the analyses. The resultant 196 respondents were between 17 and 25 years of age (M = 19.8 years). The ethnic composition overall was 71% Caucasian, 13% Asian-American, 8% African-American, 5% Hispanic and 3% other. Participants reported religious affiliation as: 60% Catholic,18% Protestant, 10% other, 6% Orthodox, 4% Muslim, and 2% Jewish.

A total of 42% of participants indicated that they were currently involved in a dating relationship and 14% of subjects responded that they knew someone who has AIDS.

Results from the SDUI

Sexual behaviors

Of the 196 participants completing the questionnaire, a total of 118 (60.2%) indicated that they had sexual relations during the past 12 months. Those respondents who indicated that they had never had sexual relations or had

not had sexual relations during the past 12 months (39.8% of respondents) were asked to skip the remaining questions pertaining to sexual behaviors and to complete only the questions assessing drug use behaviors. Non-sexually active respondents were asked to skip questions pertaining to sexual behaviors as the questions probed sexual behaviors within the past 12 months and were thus irrelevant to those who were not sexually active; consequently, the following descriptive statistics are based on those 118 respondents who responded as being sexually active.

When asked who they had sexual relations with, a total of 115 (97.5%) had sex with men only, 1 (0.8%) had sex with women only, and 2 (1.7%) had sex with both, mostly women. Most respondents indicated that they had met their partners through friends (60.3%). Other means by which respondents indicated meeting their sexual partners included: at a bar or dance club (19.0%); at work (10.3%); at school (5.2%); on the street (1.7%); at a health club (0.9%); or other (31.0%). Those indicating "other" generally reported having been in a long term relationship and had met their partners in high school.

In response to the question assessing the relationship between the respondent and her sexual partner, most (65.3%) reported having one primary partner during the past 12 months. However, 23.7% of respondents indicated having engaged in sexual relations with one primary partner and one

or more casual partners, and 11.0% reported having one or more casual partners who were friends. In response to the number of sex partners each has had during the past 12 months, the responses ranged from 1 to 7 (M = 1.8 partners).

Respondents were also asked to indicate the types of sexual activity they participated in during the past 12 months. Reported sexual behaviors were as follows: vaginal sex (95.7%); oral (active) sex (63.8%); oral (receptive) sex (62.1%); and anal sex (5.2%). Finally, participants were asked to indicate the frequency of condom use during sex. Responses concerning condom use were: every time (35.0%); sometimes (28.2%); rarely (15.4%); and never (21.4%).

Drug Use Behaviors

Respondents were asked how often during the past 12 months various drugs were used. More than half (50.5%) reported using alcohol frequently or sometimes and 11.3% reported using marijuana just as often. Use of other drugs was reported less frequently and no one indicated having ever used intravenous drugs (see Table 1).

TABLE 1

REPORTED FREQUENCY OF ALCOHOL AND DRUG USAGE (N = 196)

	Frequently	Sometimes	Rarely	Never
Alcohol	21.9	28.6	31.6	17.9
Marijuana	4.1	7.2	12.8	75.9
Cocaine	0	1.0	0.5	98.5
Speed or amphetamines	0	0.5	1.0	98.5
Hallucinogens (i.e., LSD, acid)	0	0	3.1	96.9
Heroin	0	0	0	100.0
Poppers	0	0	0	100.0

Note: All numbers represent percentages.

Results of the AIDS Knowledge Questionnaire

The dependent variable was the difference in AIDS Knowledge scores computed using posttest minus pretest scores on the AIDS Knowledge Questionnaire. A oneway ANOVA was conducted (i.e., five conditions) revealing a "marginally" significant, F (4, 181) = 2.209, p = .07 effect for condition.

TABLE 2

MEAN AIDS KNOWLEDGE SCORES BY CONDITION

Condition	N	Pretest	Posttest	Difference
Female Peer	42	44.86	46.00	1.14
Male Peer	39	45.05	45.31	.26
Female HP	33	44.55	45.88	1.33
Male HP	38	45.16	45.34	.18
Control	30	45.27	45.03	-.24

Note: Scores ranged from 0-49. For entire sample, pretest *SD* was 2.21 and posttest *SD* was 2.69.

As can be seen in Table 2, the AIDS Knowledge scores increased from pretest to posttest in each of the four experimental conditions. The greatest increase, however, was reflected in the scores of those in the Female Health Professional Condition, followed by the Female Peer, Male Peer, and Male Health Professional conditions, respectively.

Upon review of the relatively high mean AIDS Knowledge scores, it appears that there may be a ceiling effect. For six of the 49 pretest items, 100% of respondents answered correctly. These items included, for example, "Most people who develop AIDS eventually recover," "AIDS weakens the body's ability to fight off disease," and "People of any race can get HIV and develop AIDS." Although the majority of respondents scored relatively high on the AIDS knowledge items, analysis of responses revealed that misbeliefs do

exist among this sample of young women. To illustrate, 29.6% of women incorrectly responded that a person only needs one HIV test to come out positive to be sure she is infected; 18.5% of participants falsely responded that most people who have HIV infection are sick with AIDS; 14.8% incorrectly believed that if their current sexual partner has been tested and does not have HIV infection, it means that they are not infected; and a relatively alarming 15.8% of women did not know that HIV is carried in men's semen. Misconceptions relevant to modes of contraction were also evident: 15.5% of women incorrectly believed that people have been known to get HIV and develop AIDS by "tongue kissing" a person who is infected; 17.9% falsely responded that people have been known to get HIV and develop AIDS from insect bites; and 18.4% thought that a person could contract HIV and develop AIDS by donating blood.

One final note relevant to the AIDS Knowledge Questionnaire pertains to its inter-item reliability. As reported, the original 52-item scale revealed a moderately high reliability, yet reliabilities generated for the adapted 49-item version used in the present study revealed a much lower alpha score (standardized alpha = .30). Differences in samples and prior AIDS knowledge may have accounted for this difference.

Perceived Vulnerability

Hypothesis testing was carried out for the three

hypotheses using Analysis of Variance (ANOVA). The critical dependent variable that was used to assess perceived vulnerability to HIV/AIDS was the computed difference score (posttest minus pretest score) on the Perceived Vulnerability (PV) Subscale.

Hypothesis I stated that college women who view a videotaped educational presentation led by a female peer educator would report greater change in concern about their perceived vulnerability to HIV/AIDS when compared to college women viewing a male peer educator or an older female or male professional health educator. To evaluate this hypothesis, a 2 X 2 (Gender of Educator X Status of Educator) ANOVA was conducted (see Table 3).

TABLE 3

GENDER OF EDUCATOR BY STATUS OF EDUCATOR ANOVA TABLE

Source of Variation	SS	df	MS	F	prob.
Gender	1.921	1	1.921	.578	.448
Status	.021	1	.021	.006	.937
Gen X Status	.859	1	.859	.258	.612
Within	528.834	159	3.326		
Total	531.656	162			

As can be seen in Table 3, no statistically significant results were revealed for the Gender of Educator X Status of Educator interaction F (1, 162) = .258, p = .612. However,

means calculated for the PV Subscale increased from pretest to posttest in the proposed direction (see Table 4).

TABLE 4

MEAN PERCEIVED VULNERABILITY SCORES BY CONDITION

Condition	Perceived Vulnerability Pretest	Posttest	Difference	n
Female Peer	8.75	9.07	0.32	44
Male Peer	8.38	8.62	0.24	42
Female HP	8.00	8.44	0.44	36
Male HP	8.32	8.39	0.07	41
Control	8.16	8.00	-0.16	32

Note: Scores ranged from 4-16. For entire sample, pretest *SD* was 2.20 and posttest *SD* was 2.31.

As can be seen in Table 4, the greatest increase in perceived vulnerability to HIV/AIDS occurred in the Female Health Professional condition, followed by increases in the Female Peer, Male Peer, and Male Health Professional conditions respectively.

Hypothesis II stated that college women who have had multiple sex partners (i.e., two or more) within the past 12 months would report greater change in concern about their perceived vulnerability to HIV/AIDS after viewing a videotaped educational presentation led by a female peer educator as compared to college women who have had less than two sexual partners within the past 12 months who are exposed to the other conditions previously described. A 2 X 2 X 2 (Gender of Educator X Status of Educator X Number of Sexual Partners) was conducted to examine this hypothesis

(see Table 5).

TABLE 5

GENDER OF EDUCATOR X STATUS OF EDUCATOR X NUMBER OF SEX PARTNERS ANOVA TABLE

Source of Variation	SS	df	MS	F	prob.
Gender	2.729	1	2.729	.796	.374
Status	.008	1	.008	.002	.962
Partner	3.104	2	1.552	.453	.637
Gen X Status	1.435	1	1.435	.418	.519
Gen X Partner	3.200	2	1.600	.467	.628
Stat X Partner	2.758	2	1.379	.402	.670
G X S X P	1.494	2	.747	.218	.804
Within	517.701	151	3.428		
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Total	531.656	162			

Table 5 illustrates that there were no significant interactions. The hypothesized three-way interaction for (Gender of Educator X Status of Educator X Number of Sexual Partners) was not statistically significant, F (2, 162) = .218, p = .804. As Table 6 illustrates, most respondents reported a modest increase in their perceived vulnerability to HIV/AIDS from pretest to posttest, regardless of number of sexual partners.

TABLE 6

MEAN PERCEIVED VULNERABILITY SCORE BY NUMBER OF SEX PARTNERS AND CONDITION

Number of Partners	Pretest	Posttest	Difference	N
Zero Partners				
Female Peer	8.75	8.80	0.05	20
Male Peer	7.47	7.53	0.06	15
Female HP	8.15	8.50	0.35	20
Male HP	7.87	7.87	0.00	15
Control	8.40	8.50	0.10	10
All	8.15	8.27	0.12	80
One Partner				
Female Peer	8.27	8.64	0.37	11
Male Peer	8.87	9.19	0.32	16
Female HP	8.22	8.67	0.45	09
Male HP	8.33	8.78	0.45	18
Control	8.00	7.77	-0.23	18
All	8.35	8.57	0.22	72
Two or More Partners				
Female Peer	9.15	9.85	0.70	13
Male Peer	8.91	9.27	0.36	11
Female HP	7.29	8.00	0.71	07
Male HP	9.12	8.50	-0.62	08
Control	8.25	8.00	-0.25	04
All	8.70	8.98	0.28	43

Note: Scale ranged from 4-16. For the entire sample, pretest SD was 2.20 and posttest SD was 2.31.

Review of perceived vulnerability mean difference scores reveals that those reporting the greatest increase in perceived vulnerability following the HIV/AIDS video were those respondents indicating more than two sex partners within the past 12 months who were in the Female Health Professional condition. The second greatest increase occurred for those with the same number of partners who were in the Female Peer condition. Overall, those who reported

being sexually active increased their perceptions of susceptibility to HIV/AIDS infection more than those who reported not being sexually active. Finally, it is important to note that both pretest and posttest mean scores for all conditions fell below the midpoint of the scale (midpoint = 10).

Hypothesis III stated that college women who have engaged in more high risk sexual or injection drug use behaviors within the past 12 months would report greater change in concern about their perceived vulnerability to HIV/AIDS after viewing a videotaped educational presentation led by a female peer educator as compared to college women who have engaged in fewer high risk sexual or injection drug use behaviors who were exposed to the other conditions previously described.

No respondents indicated ever having used IV drugs; as such, high risk sexual behavior was defined as the absence of using a condom every time the respondent had sexual relations. A 2 X 2 X 2 (Gender of Educator X Status of Educator X Frequency of Condom Use) ANOVA was conducted to examine this hypothesis (see Table 7).

TABLE 7

GENDER OF EDUCATOR X STATUS OF EDUCATOR X FREQUENCY OF CONDOM USE ANOVA TABLE

Source of Variation	SS	df	MS	F	prob.
Gender	1.920	1	1.920	.441	.508
Status	.691	1	.691	.159	.691
Condom Use	7.816	1	7.816	1.797	.184
Gen X Status	.837	1	.837	.192	.662
Gen X Cond Use	.564	1	.564	.130	.720
Stat X Cond Use	.755	1	.755	.174	.678
G X S X CU	1.649	1	1.649	.379	.540
Within	378.448	87	4.350		
------	-------	--			
Total	391.832	94			

As can be seen in Table 7, the Gender of Educator X Status of Educator X Frequency of Condom Use interaction revealed non-significant results, F (1, 94) = .379, p = .54. Table 8 reveals mean difference scores from pretest to posttest for those who reported using a condom every time they engaged in sexual activity and for those who did not use a condom every time they had sex.

TABLE 8

MEAN PERCEIVED VULNERABILITY SCORES BY FREQUENCY OF CONDOM USE AND CONDITION

Condom Use	Pretest	Posttest	Difference	N
Every Time				
Female Peer	8.57	9.77	1.20	07
Male Peer	9.00	9.33	0.33	06
Female HP	6.40	7.40	1.00	05
Male HP	8.31	8.92	0.61	13
Control	8.20	8.20	0.00	10
All	8.19	8.76	0.57	41
Not Every Time				
Female Peer	8.78	9.00	0.22	18
Male Peer	8.86	9.19	0.33	21
Female HP	8.45	8.82	0.37	11
Male HP	8.77	8.43	-0.34	14
Control	8.09	7.18	-0.91	11
All	8.64	8.65	0.01	75

Note: Scores ranged from 4-16. For entire sample, pretest *SD* was 2.26 and posttest *SD* was 2.39.

As can be seen in Table 8, the greatest mean increase in perceived vulnerability to HIV/AIDS was reflected in the scores of those in the Female Peer condition; however, it was for those respondents who indicated using a condom every time they engaged in sexual relations as opposed to those who engaged in more risky sexual practices (i.e., not using a condom every time) as predicted. The means also illustrate that those who reported using a condom every time they engaged in sexual relations revealed greater mean increases in perceived vulnerability compared to those individuals who did not use a condom every time, which is contrary to what was expected. Again, these mean

differences are relatively small and posttest means were below the midpoint of the scale.

DISCUSSION AND IMPLICATIONS FOR FUTURE RESEARCH

The purpose of the present study was to examine the effectiveness of male and female peer versus male and female professional health educators on changing college women's perceptions of personal vulnerability to HIV/AIDS. Specifically, it was hypothesized that women who were exposed to an educator most similar to them (i.e., a female peer educator) would report the greatest change in perceived HIV/AIDS risk as compared to either a male peer or male or female professional health educator, following an HIV/AIDS video presentation. Overall, trends in the hypothesized direction were found following a short HIV/AIDS educational videotape on the topic; however, the group differences were not statistically significant.

Other results of this study illustrate that college-age women, although sexually active and knowledgeable about AIDS, do not perceive themselves to be at great risk of HIV/AIDS infection. This finding is consistent with the literature on college students' perceptions of AIDS risk (e.g., Freimuth, Edgar, & Hammond, 1987).

Two variables associated with an increased risk of infection are multiple sexual partners and a lack of condom use. While the majority (60.2%) of the women in this study

reported being sexually active (with 35% of sexually active women reporting multiple sex partners within the past 12 months), an alarming 65% of all sexually active women in the study did not use a condom every time they engaged in sexual intercourse. In fact, over one-third (36.8%) of participants indicated that they "rarely" or "never" used condoms when engaging in sexual relations. As such, future interventions are necessary to create a more accurate perception of AIDS risk in sexually active college women.

Given that the majority of respondents were Catholic (60%), it is possible that some of the women did not use condoms for religious reasons. Decisions to engage in sexual intercourse coupled with decisions about whether to use birth control may pose a "religious -- peer-pressure bind" for some young women. Further research is needed to examine the potential religious, ethnic, racial, and peer-related dilemmas that young women may face when attempting to engage in AIDS-preventive behaviors.

AIDS Knowledge

Although no formal hypotheses were developed with respect to AIDS knowledge, the findings of the present study are consistent with previous research: college women are familiar with the major modes of HIV transmission and prevention, although some misconceptions about transmission through casual contact persist (McGill, Smith, & Johnson, 1989). Although not statistically significant, the results

of this study indicate that same-gender educators may be potentially more effective in increasing AIDS knowledge. In the present study, AIDS knowledge scores increased in all four experimental conditions; however, the greatest AIDS knowledge increase occurred for those in the Female Health Professional condition, followed by those in the Female Peer condition. Moreover, the mean differences scores (reflecting change in AIDS knowledge between pretest and posttest) in the female conditions were four to six times greater the mean differences scores in the male conditions (i.e., the Male Peer or Male Health Professional conditions). A possible explanation for this trend may be that participants attended to and processed the information to a greater extent in the same-sex conditions because they identified with the female educators and perceived them as being more empathic. Furthermore, it may be that for communicating health information, the most salient factor is gender.

Perceived Vulnerability

Because we know that AIDS knowledge does not necessarily decrease the frequency with which one engages in high-risk sexual behavior (Allard, 1989; Baldwin & Baldwin, 1988; Valdiserri, Lyter, Leviton, Callahan, Kingsley, & Rinaldo, 1988) nor does it necessarily promote AIDS prevention (Brown, 1991), this study sought to increase women's perception of the HIV/AIDS risk, which in turn would

stimulate their concern about protecting their health.

Hypothesis I stated that those women exposed to an AIDS educational videotaped presentation led by a female peer educator would report greater changes in perceived vulnerability than those women exposed to either a male peer or female or male health professional. This hypothesis was not supported. Although the findings did not reach statistical significance, modest increases in perceptions of risk occurred in all four experimental conditions, with the greatest increase occurring for those women in the Female Health Professional condition.

Research from the social psychological literature may help to explain this finding. An accepted tenet of social psychology is that communicators regarded as having competence and trustworthiness are deemed more credible and believable (Hovland & Weiss, 1951). In other words, the higher the credibility and power attributed to the speaker, the more likely the message will be accepted. In the present study, the female health professional may have had a greater impact on changing perceptions of vulnerability because she was portrayed as an "expert" and was viewed as more of an "authority figure" than the female peer. In addition, when attempting to change perceptions of health risk, it may be that gender as well as expert status are critical characteristics.

The medium used to convey the AIDS educational

presentation also may have contributed to this finding. Because the female health professional communicated her job title (i.e., health professional) to viewers, was dressed in a doctor's lab coat, and appeared on videotape/television, her status as an "expert" was relatively salient, and her trustworthiness enhanced.

Hypothesis II stated that those individuals reporting more than two sexual partners within the past 12 months who were exposed to the Female Peer condition would report the greatest change in perceived vulnerability (as compared to the other conditions previously described) following the videotaped presentation. Although not statistically significant, the greatest increases in perceived vulnerability occurred for those in the Female Health Professional condition, followed closely by those in the Female Peer condition. Again, perceptions of the Female Health Professional as more credible or as an "expert" may have contributed to this finding.

Hypothesis III stated that women who engaged in more high risk sexual behaviors (i.e., not using a condom every time they had sexual relations) exposed to the Female Peer condition would report the greatest increase in perceived risk as compared to those in the other experimental conditions. Although no statistically significant results were found, it is interesting to note that the women reflecting the greatest mean differences scores (from

pretest to posttest) were those in the Female Peer condition who did use a condom every time they had sexual relations.

In addition, those women who reported using a condom every time they engaged in sexual relations revealed greater mean increases in perceived risk of infection as a group, than those who reported not using a condom every time they engaged in sexual intercourse. One possible explanation for this is that these women recognize the risks associated with sexual intercourse and are experiencing anxiety when their behaviors, albeit with a condom, are brought to their awareness; as a result, their responses increased to a greater extent than those for which the risks are less salient. Furthermore, it may be that those who are already engaging in AIDS-preventive behaviors (i.e., using condoms) are more receptive to AIDS information.

Finally, it is important to note that following the educational intervention, women in all four of the experimental conditions (regardless of number of partners and frequency of condom use) did not perceive themselves as being at great risk of HIV/AIDS. Both pretest and posttest assessments of perceived vulnerability reflected scores below the midpoint of the scale. As such, further efforts to create a more accurate assessment of personal risk must be targeted toward young college females.

Implications for Future Research

Currently, one-third (three million) of those infected

with HIV are women. Moreover, women are the fastest growing category of people with AIDS in the U.S. and outnumber men in the heterosexual exposure category (Stuntzner-Gibson, 1991). It is estimated that by the year 2000 the annual number of AIDS cases in women will begin to equal that in men (Petros-Barvazian & Merson, 1990). Despite the current situation and projections for the near future, it appears that some young women still do not personalize the risk of HIV/AIDS (Freimuth, Edgar, & Hammond, 1987). Although the hypotheses proposed in the present study were not supported, several implications for future research emerge.

In the study, "female peer" was operationalized as a young female who identified herself as a college student attending a nearby university. One possible reason that the hypotheses were not supported may be that by definition, a "peer" is more than just an individual similar in age and appearance. Similarly, "peer education" generally involves dialogue and interaction with the peer educator, rather than a same-age communicator presented on video. In the present study there was no opportunity for students to interact with or ask questions of the presenters. Perhaps because the experiment was designed as an informational video/lecture (as opposed to a didactic/interactive presentation), the "true" effects of peer education were masked.

Rickert et al. (1991) investigated differences between peer-led versus adult-led AIDS educational programs;

however, they did not examine gender differences. Although no statistically significant differences were found, program participants in the peer-led program were more likely to engage in interactive discussion and ask more questions following the intervention than those in the adult-led program. Moreover, peer counselors produced the greatest attitude changes related to personal risk of HIV infection and promoted more positive changes in attitudes toward prevention.

Overall, modest increases in both AIDS knowledge and perceptions of vulnerability to AIDS occurred in all four experimental conditions. However, it appears that the intervention was not strong enough to adequately test the theory. Interaction between the communicator may be required to achieve a significant change in perceptions of risk. That is, a "live" peer educator may be more effective due to the opportunity for questions and the educator's "peerness" may become more salient. Also, the use of a peer educator who has had more direct experience with AIDS (e.g., a peer who is HIV positive or a peer who conveys his or her direct experience with persons with AIDS [PWA]) could potentially be another effective means of operationalizing peer education.

Careful analysis of <u>who</u> is seen as a peer must be conducted. Thus, the present study revealed the difficulty of converting an idea with both intuitive appeal and

research support into an effective intervention. Taken together, these data suggest that the effects of male and female peer versus male and female professional health educators on perceptions of AIDS vulnerability in young women merits further investigation.

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APPENDICES

APPENDIX A

CONSENT FORM

The purpose of this research is to gain information about students' attitudes towards AIDS. Please know that all of the information that we will collect today is confidential. This means that it will be seen only by myself and other qualified researchers and will be used for research purposes only. Further, the information is anonymous. Your name will not appear on any of the data. Instead, we are coding all of the information by number, not name.

During the study, you may view a video which contains sexually explicit material. If at any time you feel uncomfortable during either the presentation or when filling out the questionnaire, you may discontinue your participation in this research without penalty. **Because this is a two-part study, you must return for the follow-up session in order to receive 2 credit hours of research participation.**

Please feel free to ask any questions. Thank you for your time and consideration in this important research. Your participation is greatly appreciated.

Sincerely,

Kristen Donovan

I understand the nature of this research and have been advised of my right to leave this study at any time without any negative consequences. I also understand that any information I provide is completely anonymous and will be used for research purposes only.

X_____ _____

Signature Date

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

Last 4 digits of S.S.# ___ ___ ___ ___ ____ **(First letter of first name)**

AGE: _____

PLEASE CIRCLE THE APPROPRIATE RESPONSE FOR EACH OF THE FOLLOWING:

YEAR IN COLLEGE: 1st 2nd 3rd 4th 5th

RELIGION: Catholic Protestant Jewish

other_____

RELATIONSHIP STATUS: single dating

live with partner married divorced widowed

ETHNIC BACKGROUND: Caucasian African-American Asian

Hispanic Indian other_____

What is the occupation of the main provider in your family?

_____ a. Executive, doctor, dentist, lawyer
_____ b. Manager/owner of a large business
_____ c. Administrator, small businessperson or semi-professional
_____ d. Clerical or salesworker or technical worker
_____ e. Semi-skilled laborer
_____ f. Unskilled laborer
_____ g. Unemployed for 1 year or more

What is the highest education level the main provider in your family has completed?

_____ a. Graduate education
_____ b. College degree
_____ c. One year or more of college without degree
_____ d. High school diploma
_____ e. Some high school
_____ f. less than eighth grade

Do you know anyone personally who has contracted HIV/AIDS?

YES NO

APPENDIX C

SEXUAL AND DRUG USE INVENTORY

Since AIDS can be spread through sexual contact and some types of drug use, I'm going to ask you some questions on those subjects. Please remember that all of your answers are absolutely anonymous, so please answer these questions completely and honestly.

1. Do you generally have sex with:

_____ men only
_____ women only
_____ both, mostly men
_____ both, mostly women
_____ I have never had sex or have not had sex during the past 12 months (SKIP TO QUESTION #8)

2. During the past 12 months, where have you usually met your sexual partners? (Check all that apply)

_____ through friends
_____ at a bar or dance club
_____ at a health club
_____ on the street
_____ at work
_____ through personal ads
_____ other (Specify:_____)

3. During the past 12 months, where have you had sex? (Check all that apply)

_____ at my place
_____ at someone else's home
_____ at a hotel or motel
_____ outdoors (for example, in a park)
_____ in a public place (e.g. restrooms, theaters, parked cars)
_____ other (Specify:_____)

4. During the past 12 months, who have you had sex with? (Check only 1 response)

_____ one primary partner only
_____ one primary partner and one or more casual partners
_____ one or more casual partners who are friends
_____ one or more casual partners who are strangers

5. During the past 12 months, how many different people have you had sex with? _____

6. What type of sexual intercourse have you had most frequently in the past 12 months? Please check as many that apply to you.

_____ no sexual intercourse
_____ oral (active)
_____ oral (receptive)
_____ vaginal
_____ anal (in the rear)
_____ other, specify_____

7. During the past 12 months, how often did your sexual partner(s) wear a condom when having sex? Would you say this occurred.....

_____ every time
_____ sometimes
_____ rarely
_____ never

8. How frequently, during the past 12 months, have you used alcohol or drugs before or during sex? Would you say this occurred.....

_____ every time
_____ sometimes
_____ rarely
_____ never

9. Please tell me how often you have used each of the following, during the past 12 months. Would you say frequently, sometimes, rarely, or never:

	FREQUENTLY	**SOMETIMES**	**RARELY**	**NEVER**
alcohol	___	___	___	___
marijuana	___	___	___	___
cocaine	___	___	___	___
speed, crystal, amphetamines	___	___	___	___
hallucinogens (LSD, acid)	___	___	___	___
heroin	___	___	___	___
poppers	___	___	___	___

10. Have you ever done intravenous (IV) drugs or skin popping?

_____ yes _____ no **(IF YOU ANSWERED NO, PLEASE GO ON TO THE NEXT PAGE)**

11. In the last 12 months, how frequently have you done IV drugs or skin popping?

_____ less than once each month
_____ once or twice each month
_____ every week
_____ more than once a week

12. How often did (do) you share needles when you use(d) IV drugs?

_____ every time
_____ sometimes
_____ rarely
_____ never

APPENDIX D

AIDS KNOWLEDGE QUESTIONNAIRE

Read each of the following statements and decide whether you think the statement is true or false. Please mark (T) for True and (F) for False.

_____ 1. AIDS means acquired immune deficiency syndrome.

_____ 2. Most scientists today believe that AIDS is caused by a virus called HIV (Human immunodeficiency virus).

_____ 3. Most people who develop AIDS eventually recover.

_____ 4. A baby born to a mother with HIV infection can get AIDS.

_____ 5. HIV is carried in the blood.

_____ 6. Most people who have HIV infection are sick with AIDS.

_____ 7. Prostitutes in Chicago have a low chance of getting HIV (which can lead to AIDS).

_____ 8. HIV is carried in men's semen.

_____ 9. The number of men and women infected with HIV will probably be less In the next several years than it is now.

_____ 10. AIDS weakens the body's ability to fight off disease.

_____ 11. People have been known to get HIV and develop AIDS from toilet seats.

_____ 12. A negative HIV antibody test means that a person probably has AIDS.

_____ 13. You can't get HIV (which can lead to AIDS) if you only have intercourse with one person for the rest of your life.

_____ 14. HIV (which can lead to AIDS) can get into your body if you share a needle with a drug user who has the infection.

_____ 15. It is a good idea to ask someone about his/her past sexual activities before having sex with them, even though some partners may lie to you.

_____ 16. If the HIV test comes out negative, it means that the person has AIDS.

_____ 17. People get other diseases because of AIDS.

_____ 18. You can die from AIDS.

_____ 19. Men have a higher chance of getting AIDS from having sex with a woman than from having sex with a man.

_____ 20. Using a condom will lessen the chance of getting AIDS.

_____ 21. People who have AIDS get pneumonia more often than the average person.

_____ 22. Women are more likely to get AIDS from having sex with a straight (heterosexual) man than with a bisexual man.

_____ 23. It is safe to have intercourse without a condom with a person who shoots drugs as long as you don't shoot drugs.

_____ 24. People have been known to get HIV and develop AIDS from a swimming pool used by someone with AIDS.

_____ 25. People who have AIDS get brain infections more often than the average person.

_____ 26. People of any race can get HIV and develop AIDS.

_____ 27. People have been known to get HIV and develop AIDS by tongue kissing a person who is infected.

_____ 28. Lambskin condoms are better than latex condoms for preventing HIV infection.

_____ 29. People usually become very sick with AIDS a few days after being infected with HIV.

_____ 30. Getting AIDS depends on whether or not you practice safe sex, not on the group you hang out with.

_____ 31. People have been known to get HIV and develop AIDS from insect bites.

_____ 32. It is safer not to have sexual intercourse at all than to have sexual intercourse using a condom.

_____ 33. You only need one HIV test to come out positive to be sure that you are infected.

_____ 34. Pregnant women are safe from getting HIV infection.

_____ 35. A vaccine has recently been developed that prevents people from getting HIV (which can lead to AIDS).

_____ 36. The virus that can lead to AIDS can be passed by an infected person even though that person isn't sick.

_____ 37. People can feel satisfied or get pleasure from others without having sex.

_____ 38. If you are really healthy, then exercising daily can prevent getting HIV (which can lead to AIDS).

_____ 39. If the person you are now having sex with has been tested and does not have HIV infection, it means that you are not infected.

_____ 40. People have been known to get HIV and develop AIDS by eating at a restaurant where a worker has AIDS.

_____ 41. When using condoms, it is better to use one with a spermicide like Nonoxynol-9.

_____ 42. You can get HIV and eventually AIDS through an open cut or wound.

_____ 43. You are safe from AIDS if you have oral sex (with mouth to penis or mouth to vagina) without a condom.

_____ 44. If you get a "false positive" result on your HIV antibody test, it means you are infected.

_____ 45. Anal (rear end) sex without a condom is one of the safer sexual practices.

_____ 46. You can get HIV and eventually AIDS by donating blood.

_____ 47. Using drugs like marijuana, alcohol, cocaine and crack makes it more likely that you may have unsafe sex.

_____ 48. You can get HIV (which can lead to AIDS) by getting tested for it.

_____ 49. Sterilizing needles with bleach or vodka is safer than using unsterilized needles to shoot drugs.

APPENDIX E

BELIEFS ABOUT PREVENTING AIDS SCALE

Read each statement carefully. Then show your agreement or disagreement by marking 1, 2, 3, or 4.

Mark:

1	2	3	4
Agree Strongly	**Agree Somewhat**	**Disagree Somewhat**	**Disagree Strongly**

_____ 1. I would feel uncomfortable buying condoms.

_____ 2. Most of my friends practice unsafe sex.

_____ 3. I would be too embarrassed to carry a condom around with me, even if I kept it hidden.

_____ 4. It doesn't bother me if others make fun of me because I believe in having safe sex.

_____ 5. If my partner won't use a condom, I won't have sex.

_____ 6. My friends have changed the way they have sex because of the AIDS epidemic.

_____ 7. I will have safe sex even if people make fun of me for it.

_____ 8. AIDS is a health scare that I take very seriously.

_____ 9. There is a good chance I will get AIDS during the next five years.

_____ 10. It is possible that I could get AIDS.

_____ 11. When most people have sex with someone, they don't ask if that person shoots drugs or shares needles.

_____ 12. If I ask to use condoms, it might make my partner not want to have sex with me.

_____ 13. A person who gets AIDS has a good chance of being cured.

_____ 14. I plan on being very careful about who I have sex with.

_____ 15. My friends practice safe sex.

_____ 16. I have no control over my sexual urges.

_____ 17. My friends feel that it is too much trouble to use condoms.

_____ 18. I have a high chance of getting AIDS because of my past history.

_____ 20. My partner will know I really care about him/her if I ask to use condoms.

_____ 21. People will think I am afraid of having sex if I bring up the subject of AIDS.

_____ 22. If I continue to engage in the same types of sexual and/or drug behavior as I have engaged in during the past 12 months, I could potentially be exposed to HIV.

_____ 23. I don't know how to use a condom.

_____ 24. AIDS is the scariest disease I know.

_____ 25. If I was going to have sex with someone and they made fun of me for wanting to have safe sex, I would probably give in.

_____ 26. There is still time for me to protect myself against AIDS.

_____ 27. Trying to have safe sex gets in the way of having fun.

_____ 28. I feel almost sure that I will get AIDS.

_____ 29. I know how to have safe sex.

_____ 30. Using condoms would be a sexual "turn off" for me.

_____ 31. I am not doing anything now that is sexually unsafe.

_____ 32. In the future I will always be able to practice safe sex.

_____ 33. People who engage in behaviors that I have engaged in during the past 12 months are potentially at risk for HIV infection.

_____ 34. Before I decide to have intercourse, I will make sure we have a condom.

_____ 35. Once I get sexually excited, I lose all control over what happens.

_____ 36. Most of my friends think that practicing safe sex can lower the spread of AIDS.

_____ 37. If I ask to use a condom, it will look like I don't trust my partner.

_____ 38. Carrying condoms with me every day is a habit I can keep.

_____ 39. I am too young to take care of a baby right now.

_____ 40. Not getting pregnant is very important to me.

_____ 41. I will not bother with birth control when I have intercourse with a member of the opposite sex.

_____ 42. In the future, whenever I have sexual intercourse with a member of the opposite sex, I plan to make sure we are using birth control.

_____ 43. If I wanted to have sex with a member of the opposite sex, and did not have protection, I would go ahead and have intercourse anyway.

_____ 44. If I continue to engage in the same types of sexual and/or drug behavior as I have engaged in during the past 12 months, there is a possibility I will contract HIV.

APPENDIX F

SCRIPT FOR AIDS VIDEOS

Hi, I'm here to talk to you about a little word that may mean life or death--HIV. Human immunodeficiency virus is the virus that causes people to develop AIDS or Acquired Immune Deficiency Syndrome. Because there is no cure for AIDS, it is important to learn how the virus is transmitted and how you can protect your health.

First, what is HIV? Well, it is a virus that breaks down the immune system. When your immune system is broken down, your body can no longer fight off infections of any kind. A person who is infected with HIV becomes extremely vulnerable to what are called "opportunistic infections" including pneumonia, vaginal infections, certain types of cancer, and other diseases.

Now that we know what HIV is, what is AIDS?

You may know that AIDS stands for Acquired Immune Deficiency Syndrome, but what does that mean?

Acquired: The body gets the disease from something, in this case a virus.

Immune: Refers to the body's defense system, which protects us from disease.

Deficiency: There's not enough of something, in this case it is not enough healthy-disease-fighting blood cells.

Syndrome: A collection of signs, symptoms, or diseases that develop over time.

HIV, the virus, is known to be the cause of AIDS, the disease. What we do not know is how to cure it. AIDS is actually the last stage of infection with HIV, but many people wrongly say a person has AIDS when they mean the person is carrying the HIV virus. When a person is said to have AIDS, they are not only infected with HIV but also have been diagnosed as having one or several additional diseases; it is these additional diseases that reveal damage to the patient's immune system.

How is HIV transmitted? HIV is **NOT** transmitted through casual contact or ordinary interpersonal activities. For example, you cannot get AIDS through shaking hands, sitting on a toilet seat, or drinking out of another person's glass. At present, the only certain ways the virus is transmitted are through: blood, semen, vaginal secretions, or an HIV-infected mother's milk.

Women most commonly become infected by sharing contaminated IV drug needles or by having unprotected sex with an infected partner. Once infected, women can transmit

the virus to others, including their unborn children. It is important to recognize:

ONE: Most people who have the virus have no symptoms and don't even know they're infected. In other words, you can't just look at someone and tell if they are infected.

TWO: It can take years before someone with HIV gets sick.

THREE: You cannot tell who has HIV and who does not. Someone can pass the virus to you through sex or Sharing IV needles without either of you knowing it.

FOUR: How much you care about someone and how much he or she cares about you has nothing to do with whether he or she is infected. Guess work and intuition are useless in helping you judge who is infected.

Now let's talk about some specific concerns regarding women and HIV. Do you know?

More heterosexual women have AIDS than heterosexual men.

Women have a greater risk of getting the virus from sex with men than men do from women.

Do you know that many women are unaware of their exposure to a person in a high-risk category because women's sexual partners may not be truthful about their previous or current drug use? Or, their sexual practices? Or their other sexual partners?

Most importantly, do you know that NO ONE IS IMMUNE? Women in some African-American and Hispanic communities already feel a severe impact from AIDS. You should know that women of all races, cultures, and socio-economic statuses get AIDS; women just like you.

Getting the facts about preventing HIV makes good sense. In order to prevent HIV infection, there are some things you should know:

One SURE way to avoid the risk of HIV infection is by choosing abstinence. Another is a monogamous relationship with someone known to be HIV negative. I'm not here today

to lecture you about abstinence, but there are a few things I want to point out. Although latex condoms do reduce the risks of HIV infection, the level of protection is not known; nor are condoms a guarantee that you will not get AIDS.

Most of the advice given to young people is: "A condom is the best known prevention against AIDS." In fact, *avoidance of exposure* is the most preferable strategy. You may choose abstinence at different times in your life. It may be a temporary choice, until you have the facts about your partner's sex and drug use behaviors or until you and your partner decide on safer sex activities. Whatever decisions you make about sex, good communication with your partner is crucial. Remember: Your feelings are valid--DO NOT let someone else's lack of concern intimidate you or make you feel that you cannot say no to him until he is tested and cleared.

Please remember that no one can protect you except yourself. It is your life and your body. Finally, you cannot expect your partner to protect you. He may not know how.

If you do choose to be sexually active it is important to take action to protect yourself. There are several ways to reduce the risks to your health:

ONE: Avoid taking blood, semen, or vaginal secretions from your partner into your body or onto broken skin.

TWO: If you use the pill or another method of birth control, you still need to use condoms and spermicides to prevent HIV infection.

THREE: If you are going to engage in oral sex with a man, or have anal or vaginal intercourse, the best methods of protection are latex condoms and spermicides with nonoxynol-9.

FOUR: If you are going to have oral sex on a woman, latex squares (also called dental dams) are recommended.

Now let's talk specifically about condoms. As a woman, you are more in control of your own safety if you know how to use and buy condoms. Here are 5 tips on condom use:

ONE: Only use latex condoms--natural or lambskin condoms let HIV pass through them.

TWO: Read the instructions thoroughly <u>with your partner</u>--not all men are completely sure of correct condom use.

THREE: The condom must be put on before penetration because the virus can be present in pre-ejaculatory fluid.

FOUR: If you are using lubricants, make sure to use a water-based lubricant that has nonoxynol-9 that will help to prevent condom breakage.

FIVE: Remember, practice makes it easier, and after awhile it doesn't become a hassle.

<u>What about AIDS testing</u>? Well, to begin, deciding whether to get an AIDS test is a complex decision and there are a number of questions you should ask yourself before you decide to be tested. To find out more about the issues involved in testing talk to a counselor, health provider, or AIDS hotline.

If you or your partner are considering testing, make

sure to use a test site that offers both pre- and post-test counselling. Also, many clinics offer anonymous testing. Do remember that recent exposure to HIV may not be detected by a test if you are tested too early. A negative test result shows that you and/or your partner had no antibodies in your bloodstream when you took the test. But your AIDS status is still not absolutely certain if the exposure took place very recently. After about six weeks the antibodies should be present if the person is infected. If the test comes out negative, there's a good chance that the person is okay, but should be taken again six months later if there are any doubts.

Most importantly, a negative test for HIV does not protect you from current or future exposure to the virus. You must continue to protect yourself if you remain sexually active.

Many women have already taken action to reduce their risk of HIV infection. You can too. To be successful you need to:

Have a strong, consistent commitment to taking care of yourself.

Know your feelings, needs, and values.

Have accurate information on ways to reduce risk.

And practice risk reduction consistently.

If you have the facts and know your feelings, you can make choices that you feel good about and that work for you. Remember, YOU are the best protector of your health.

APPENDIX G

DEBRIEFING FORM

I would like to thank you for your participation in this important study. The purpose of this research is to educate college women concerning HIV contraction and AIDS. More importantly, the intent of the researcher was to promote a more accurate perception of the AIDS risk in college women. Your participation will not only contribute to the development of future AIDS education interventions, but hopefully will also increase your awareness of high-risk behavior.

Again, thank you for your time and consideration. Please feel free to contact me if you have any questions.

Sincerely,

Kristen Donovan
(312)262-0906

VITA

The author, Kristen Donovan, was born in Golden Valley, Minnesota on November 9, 1969.

In August, 1987, Ms. Donovan entered Saint Mary's College of Minnesota, where she graduated magna cum laude with the degree of Bachelor of Arts in Psychology in May, 1991. While attending Saint Mary's College, Ms. Donovan was awarded membership in Psi Chi National Psychology Honors Society and the National Catholic Honors Society, and was recognized as a National Dean's List Student. During her junior and senior years, she served as President of the Student Activities Committee and Vice-President of Student Senate.

In August, 1991, Ms. Donovan was granted an assistantship in psychology at Loyola University of Chicago, enabling her to complete the Master of Arts in January, 1994.

APPROVAL SHEET

The thesis submitted by Kristen Donovan has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

12/1/93
Date

Isiaah Crawford, Ph.D.
Director's Signature